

SOV/56-36-4-17/70

On the Observation of a $\pi^0 \rightarrow e^- + e^+ + e^- + e^+$ -Decay

of 1000 GOST-units. The pictures were taken through the external glass wall of 25 mm thickness; the object lenses had a resolving power of 50 lines/mm in the visual field center. The π^- -meson beam had a mean energy of 160 Mev. Irradiation was carried out on the synchrocyclotron of the United Institute for Nuclear Research. Among 90,000 stereophotographs 1400 cases of elastic (π^-p)-scattering were found, and 26 cases of charge exchange scattering followed by $\pi^0 \rightarrow e + e + \gamma$ -decay were discovered. (Ref 6). Among 25,000 π^0 -decays of the usual type $\pi^0 \rightarrow 2\gamma$, one case of a $\pi^0 \rightarrow e^- + e^+ + e^- + e^+$ -decay was found. By means of momentum- and angular measurements an estimate of the π^0 -mass was given as amounting to (141 ± 8) Mev, which may be in agreement, within the limits of measuring errors, with that of 135 Mev which is today generally assumed. Angular determination in the rest system of the π^0 -particle gave the following results for double pair production: Angle between e^- and e^+ : $(7 \pm 2)^\circ$ at momenta of 56.1 and 11.9 Mev/c, and $(12 \pm 4)^\circ$ at 9.0 and 58.7 Mev/c. The angle between the planes in which the pair tracks were located, is given as $< 37^\circ$. Finally, other possibilities of interpreting the results obtained are discussed,

Card 2/3

SOV/56-36-4-17/70

On the Observation of a $\pi^0 \rightarrow e^- + e^+ + e^- + e^+$ -Decay

they need, however, not to be considered as very probable. The authors in conclusion thank D. W. Joseph (Ref 3) for placing a preprint at their disposal, D. V. Shirkov for discussions, and L. I. Krasnoslobodtseva, T. S. Sazhneva and Yu. L. Saykina for evaluating the films. There are 2 figures, 3 tables, and 10 references, 3 of which are Soviet.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (United Institute of Nuclear Research)

SUBMITTED: December 25, 1958

Card 3/3

21(8) SOV/56-35-6-38/44
 AUTHORS: Budagov, Yu. A., Viktor, S., Dzhelepov, V. P., Yermolov, P. F.,
 Moskalev, V. I.
 TITLE: The Electron-Positron Pairs Which Are Formed in the Decay
 $\pi^0 \rightarrow e^- + e^+ + \gamma$ (Elektronno-pozitronnyye pary, obrazovannyye
 pri raspade $\pi^0 \rightarrow e^- + e^+ + \gamma$)
 PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
 Vol 35, Nr 6, pp 1575-1577 (USSR)
 ABSTRACT: In a diffusion chamber, which was filled with hydrogen (up to
 25 atm) and was irradiated with a 150 MeV negative pion beam of
 the synchrocyclotron of the Ob'yedinenny institut yadernykh
 issledovaniy (United Institute for Nuclear Research), 14 cases
 of a charge exchange scattering of negative pions by hydrogen
 with following $\pi^0 \rightarrow e^- + e^+ + \gamma$ decay of the π^0 -meson were
 recorded according to the Dalitz (Dalits) scheme. This chamber
 had a sensitive range of 380 mm diameter and operated in a
 9000 Oe constant magnetic field. These 14 cases were found
 when looking over 45000 stereoscopic photographs. Two of these

Card 1/3

SOV/56-35-6-38/44

The Electron-Positron Pairs Which Are Formed in the Decay $\pi^0 \rightarrow e^- + e^+ + \gamma$

photos are attached. The results obtained by the evaluation of plates with electron-positron pairs are given by a table. The electron energies E^- and the positron energies E^+ could be determined from the curvature radii of the traces with an inaccuracy of not more than 10-15%. The total energies $E = E^- + E^+$ of all pairs are within the interval of 17-270 MeV, which corresponds to the energy spectrum of the γ -quanta formed by the decay of neutral pions (produced by re-charging). The table also contains the correlation angles α (in the laboratory system) between the electrons and positrons of the pairs and the angles θ between the direction of motion of the center of mass of the pair and the incident negative pion. For the general form of angular distribution it holds that $\mathcal{P}(\alpha) \sim \text{const } d\alpha/\alpha$ (R. H. Dalitz) (Ref 2). Because of the good correlation between the electrons and positrons produced by the decay $\pi^0 \rightarrow e^- + e^+ + \gamma$ the angular distribution of pairs must be in very good agreement with that of the γ -quanta originating from the decay $\pi^0 \rightarrow 2\gamma$. The kinematics of none of the 7 pairs with exactly determined

Card 2/3

SOV/56-35-6-38/44

The Electron-Positron Pairs Which Are Formed in the Decay $\pi^0 \rightarrow e^- + e^+ + \gamma$

total energy corresponds to the decay $\pi^0 \rightarrow e^- + e^+$. Besides, not a single decay $\pi^0 \rightarrow e^- + e^+ + e^- + e^+$ was found. Investigations are still being continued. The author thanks L. I. Krasnoslobodtseva for her help in looking through the photographs. There are 2 figures, 1 table, and 11 references, 2 of which are Soviet.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (United Institute for Nuclear Research)

SUBMITTED: August 26, 1958

Card 3/3

82412

S/056/60/038/03/10/033
B006/B014

24.6600

AUTHORS:

Budagov, Yu. A., Viktor, S., Dzhelepov, V. P., Yermolov, P. F.,
Moskalev, V. I.

TITLE:

Elastic Scattering¹⁹ of 128- and 162-Mev π^- -Mesons by Protons

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 38, No. 3, pp. 734-746

TEXT: The article under review was read at the Sixth Meeting of the Scientific Council of OIYaI held in May, 1959, and at the Conference on the Physics of High-energy Particles which took place in Kiyev in July, 1959. This article contains the results of studies of the elastic scattering of negative 128- and 162-Mev pions by protons in a hydrogen diffusion chamber. The experimental arrangement is schematically represented in Fig. 1. The π^- -mesons were produced by bombarding a 40 mm thick beryllium target with the 670-Mev proton beam of the synchrocyclotron of OIYaI. About 90,000 stereophotographs were taken. The diffusion chamber is schematically shown in Fig. 2. The chamber operated at pressures of up to 25 atm and had an inside temperature gradient of 7 deg/cm. The sensitive layer was 6 - 7 cm high. A solenoid magnet of the

Card 1/4

62417

Elastic Scattering of 128- and 162-Mev
 π^- -Mesons by Protons

S/056/60/038/03/10/033
 BOC6/B014

type MS-4A was used to generate a constant magnetic field (9,000 gauss). This electromagnet was produced at NII EFA by N. S. Strel'tsov, A. V. Ugamm, N. N. Indukov, Yu. P. Semenov, V. I. Sergeyeva, and A. G. Studennikova. D. P. Vasilevskaya and Yu. N. Denisov supplied a magnetometer based on the Hall effect. The negative pion beams had an energy of 128 ± 6 and 162 ± 10 Mev, the sum of the μ^- -meson and electron admixture amounted to $(16 \pm 2)\%$. The pictures were evaluated twice. The efficiency of this stereoscopic evaluation was 97 per cent. 379 cases of scattering at 128 Mev and 1,113 cases at 162 Mev were found. Fig. 3 shows the distribution of the number of elastic scattering events with respect to the height of the sensitive layer. At both energies the distributions reached peaks at about 40 mm. The criteria for the selection of scattering events are compiled. The total elastic π^-p -scattering cross section was calculated from the total track length L of the π^- -mesons. L was determined by means of the formula $L = 15.36 T \delta / \cos \alpha_m$ (T - total number of tracks, 15.36 is the width of the area S (Fig. 4), α_m the mean angle of slope of the tracks with respect to the edge of S , $\delta = 1$). Thus it holds that $\sigma_{exp} = N \beta / L n_{eff} (1-q) r$ (N - number of scattering events, n_{eff} - effective

Card 2/4

82412

Elastic Scattering of 128- and 162-Mev
 π^- -Mesons by Protons

S/056/60/038/03/10/033
 B006/B014

number of hydrogen nuclei per cm^3 , β - a coefficient, q - the μ^- - and electron admixtures in the beam, r - the efficiency of evaluation of the pictures). For the two energies at which measurements were made, Table 1 lists all the quantities appearing in these formulas, as well as the root-mean-square errors. Table 2 contains the values obtained for the total elastic scattering cross sections in the energy range 100 - 200 Mev. Tables 3 and 4 list the differential elastic scattering cross sections $d\sigma/d\Omega$ for 128 and/or 162 Mev. In the following, the authors discuss numerous details concerning the calculation and application of the necessary corrections. For both energies the total elastic scattering cross sections amounted to $(12.8 \pm 1.0) \cdot 10^{-27} \text{ cm}^2$ and $(21.4 \pm 1.2) \cdot 10^{-27} \text{ cm}^2$. Here, the angular-distribution formula

$d\sigma/d\Omega = a + b \cos \theta + c \cos^2 \theta$ holds, and the coefficients a, b, c for both energies are given on p. 743. Fig. 8 shows the two curves of angular distribution. The following relation holds for the differential forward scattering cross section: $d\sigma(0)/d\Omega = a + b + c = (2.20 \pm 0.32) \cdot 10^{-27} \text{ cm}^2/\text{steradian}$ (for 128 Mev) and $(3.73 \pm 0.32) \cdot 10^{-27} \text{ cm}^2/\text{steradian}$ (for 162 Mev). At these

Card 3/4

02411

Elastic Scattering of 128- and 162-Mev
 π^+ -Mesons by Protons

S/056/60/038/03/10/033
 B006/B014

energies the real parts of the forward scattering amplitudes (in the center-of-mass system) in $\hbar/m_p c$ units amount to 0.261 ± 0.031 and 0.216 ± 0.038 , respectively. These values agree with those calculated from dispersion relations if the coupling constant $f^2 = 0.08$ is used. The authors finally thank L. I. Lapidus, S. N. Sokolov, and V. A. Meshcheryakov for their discussions, L. I. Krasnoslobodtseva, T. S. Sazhneva, and Yu. L. Saykina for their assistance, as well as A. A. Andrianova and G. D. Malysheva for their calculations. Further, N. P. Klepikov, V. G. Zinov, A. D. Konin, S. M. Korenchenko, and B. M. Pontekorvo are mentioned in this article. There are 9 figures, 4 tables, and 34 references, 10 of which are Soviet.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute
 of Nuclear Research)

SUBMITTED: September 18, 1959

Card 4/4

83713

S/056/60/036/004/006/048

P019/B070

24.6900

AUTHORS:

Budagov, Yu. A., Viktor, S., Dzhelepov, V. P., Yermolov, P.F.,
Moskalev, V. I.

TITLE:

Internal Conversion Pairs in the Decay of a Neutral π -Meson ¹⁹

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 38, No. 4, pp. 1047-1052

TEXT: This work was communicated to the sixth session of the Uchenyy soviet OIYaI (Scientific Council of the Joint Institute of Nuclear Research) in May, 1959, and the Conference on the High Energy Particles in Kiyev in July, 1959. Here, data obtained from 27 events of the decay $\pi^0 \rightarrow e^- + e^+ + \gamma$ are discussed. These events were detected in a diffusion chamber exposed to π^- meson beams with energies 128 and 162 Mev. The chamber was filled with hydrogen at a pressure of 25 atm and was placed in a magnetic field of 9000 gauss. The π^0 -mesons were produced as a result of a charge exchange scattering. The determination of the relative π^0 -decay probability is treated in great detail; its theoretical value is $2\beta_0$. IX

$= w(\pi^0 \rightarrow e^- + e^+ + \gamma) / w(\pi^0 \rightarrow 2\gamma) = 0.0118$. In this connection they discuss

Card 1/3

Internal Conversion Pairs in the Decay
of a Neutral π -Meson

83713

S/056/60/038/004/006/04E
B019/B070

some American results. The value $2\rho_0 = 0.0117 \pm 0.0015$ was experimentally obtained by the authors. The angle and energy characteristic of the pairs has been studied from the data for all the 27 events given in Table 2. The angular distribution of the pairs according to the correlation angles agrees well with the data obtained theoretically by Dalitz (Fig. 2). Also the distribution of the pairs according to the parameters y

$$y = \frac{|\vec{p}_{e-} - \vec{p}_{e+}|}{|\vec{p}_{e-} + \vec{p}_{e+}|} \quad \text{and} \quad x = \frac{(E^- + E^+)^2 - (\vec{p}_{e-} + \vec{p}_{e+})^2}{(E^- + E^+)^2} \quad (\text{Figs. 3 and 4})$$

agree with the theoretical curves. Here p_{e-} and p_{e+} are the momenta of the electrons and the positrons, respectively and E^+ and E^- the total energies. The same is true for the angular distribution of the pairs relative to the direction of π^- mesons in the $(\pi^- - p)$ center of mass system (Fig. 5). Among the cases studied here, there was found one event with the mode of decay $\pi^0 \rightarrow e^- + e^+ + e^- + e^+$. The authors thank Professor R. Dalitz for making available some of the unpublished theoretical calculations. There are 5 figures, 2 tables, and 14 references: 5 Soviet, 8 US, and 1 Italian.

Card 2/3

83713

Internal Conversion Pairs in the Decay
of a Neutral π -Meson

S/556/EO/078/004/006/048
B019/B070

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint
Institute of Nuclear Research)

SUBMITTED: September 18, 1959

X

Card 3/3

21 (7)

AUTHORS:

Budagov, Yu. A., Viktor, S.,
Dzhelepov, V. P., Yermolov, P. F.,
Moskalev, V. I.

SOV/56-37-3-54/62

TITLE:

The β -Decay of the Negative π -Meson

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37,
Nr 3(9), pp 878 - 880 (USSR)

ABSTRACT:

Hitherto only the β -decay of stopped positive mesons has been investigated (Refs 1-6); in references 5 and 6 the relative probability of two such processes was determined as amounting to $(\pi^+ \rightarrow e^+ + \nu)/(\pi^+ \rightarrow \mu^+ + \nu) \approx 1 \cdot 10^{-4} \pm (20-40\%)$, which agrees with the theoretically calculated value for V-A interaction. Theoretically, the same value would have to be obtained for the analogous ratio of negative meson decays. On the search for $\pi^- \rightarrow e^-$ -decays, the authors of the present "Letter to the Editor" systematically investigated the material of 130- and 160 Mev π^- -meson scatterings on protons. A triple evaluation of 100,000 stereophotographs yielded as a result 29 decays in which the secondary particles deviated by $\theta > 20^\circ$; (the maximum angle of deviation in $\pi - \mu$ -decay at 130 Mev was 10°). Of these,

Card 1/3

The β -Decay of the Negative π -Meson

SOV/56-37-3-54/62

26 cases were identified as $\mu^- \rightarrow e^-$ and 3 as $\pi^- \rightarrow \mu^-$ decays. Figure 1 shows the momentum distribution of the electrons of the two decay forms in the rest system of the respective primary particle. A photograph of a $\pi^- e^- + \gamma$ -decay (found in a diffusion chamber at 9,000 G) is shown by figure 2. The results obtained by the three $\pi^- e^-$ -decays found are given in a table:

| Laboratory system | | | Rest system of the π^- -meson | |
|-----------------------------|---------------------------|--------------------|-----------------------------------|-----------------------|
| π^- momentum (Mev/c) | e^- momentum (Mev/c) | $\theta(^{\circ})$ | e^- momentum (Mev/c) | θ (in degrees) |
| 1. 228 ± 10 | 104 ± 8 | 42.5 ± 0.5 | 74 ± 7 | 108 ± 2 |
| 2. 207 ± 11 | 103 ± 3 | 42 ± 0.5 | 71 ± 4 | 102 ± 2 |
| 3. 266 ± 6 | 156 ± 26 | 26 ± 0.5 | 68 ± 11 | 86 ± 1 |

It is found that the identification of these processes is most probably correct, because the maximum electron momentum in the μ^- -rest system amounts to only 52.9 Mev/c, whereas that measured in this case is considerably higher. Therefore, it is not possible that $\mu^- \rightarrow e^-$ -decays are concerned. Also other processes of this kind, as e.g. $\pi^- \rightarrow \mu^- \rightarrow e^-$ -decay during flight, with a

Card 2/3

The β -Decay of the Negative π -Meson

SC7/56-37-3-54/62

short μ^- -track are improbable. The relative probability of these processes was determined as amounting to

$(\pi^- \rightarrow e^- + \bar{\nu})/(\pi^- \rightarrow \mu^- + \bar{\nu}) = (1.2 \pm 0.7) \cdot 10^{-4}$, a value which actually, within the error limits agrees with the values calculated on the basis of V-A interaction for the corresponding positive decay. The authors finally thank T. S. Sazhneva, L. I. Krasnoslobodtseva, and Yu. L. Saykina for their assistance in evaluating the plates. There are 2 figures, 1 table, and 11 references, 3 of which are Soviet.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: June 13, 1959

Card 3/3

PHASE I BOOK EXPLOITATION

SOV/6404

Godunov, Sergey Konstantinovich, and Viktor Solomonovich Ryaben'kiy

Vvedeniye v teoriyu raznostnykh skhem (Introduction to the Theory of Difference Schemes) Moscow, Fizmatgiz, 1962. 340 p.
10,000 copies printed.

Ed.: G. I. Biryuk; Tech. Ed.: L. Yu. Flaksh.

PURPOSE: This book is intended for mathematicians who have to solve partial differential equations and for students of the third and more advanced university courses. The introduction and chapter I are intended for less qualified readers and may be used in the training of technicians in computation.

COVERAGE: This book develops the concepts and techniques used in the solution of differential equations by finite-difference methods. It covers basic theory of difference equations, convergence of their solutions to the solution of differential

Card 1/β

Introduction to the Theory (Cont.)

SOV/6404

equations, stability of difference schemes, the order of approximation, the application of finite-difference schemes to partial differential equations, and the stability of difference schemes applied to the solution of equations of nonstationary processes by use of the spectral theory of difference operators. No personalities are mentioned. There are 45 references: 37 Soviet (including 2 translations, 1 from the English, 1 from the German), 5 English, and 3 German. The appendices are accompanied by 23 references: 14 Soviet, 8 English, and 1 German.

TABLE OF CONTENTS:

| | |
|--------------|----|
| Preface | 6 |
| Introduction | 11 |

Card 2/8

VIKTOR, Z.

VIKTOR, Z., prof.; TKACHEVSKIY, V. (Vroslav)

State of the gastric mucosa during sleep therapy. Klin.med. 35
no.11:136-137 W '57. (MIRA 11:2)

1. Iz tret'yey kliniki vnutrennikh bolezney (zav. - prof.
Ye.Shcheklik) Meditsinskoy akademii (Vroslav)
(PEPTIC ULCER, ther.
sleep, pathol. of gastric mucosa, gastroscopy)
(SLEEP, ther. use
peptic ulcer, pathol. of gastric mucosa, gastroscopy)
(GASTROSCOPY, in various dis.
peptic ulcer, eff. of sleep ther.)

VIKTOR, B.

Low-voltage Geiger-Muller tubes. p. 174.
SLABOPROUDY OBZOR, Prague, Vol. 17, no. 3, Mar. 1956.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
June 1956, Uncl.

VIKTORA, B.

"Repair of selenium rectifiers." P. 58.

SEDLOVACI TECHNIKA. (Ministerstvo strojirenstvi). Praha, Czechoslovakia,
Vol. 3, No. 1, Jan. 1955.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

VIKTORA, B.

Push-pull transistor converter. p. 414.

SDELOVACI TECHNIKA. (Ministerstvo strojirenstvi) Praha, Czechoslovakia,
Vol. 7, no. 11, Nov. 1959.

Monthly List of East European Accessions (KEAI) LC, Vol. 9, no. 1,
Jan. 1960

Uncl.

30529
Z/039/62/023/005/001/004
D291/D301

18.8100

AUTHORS: Frank, Helmar, Doctor of Natural Sciences, and
Viktora, Bohuslav, Engineer

TITLE: Determining the average impedance of conductors and

PERIODICAL: Slaboproudý obzor, v. 23, no. 5, 1962, 252 - 257

TEXT: The article deals with solutions of Maxwell equations for a homogeneous cylinder with arbitrary electrical conductivity which is inserted into the RF field of a simple coil. Relations are derived for the variation of the Q factor when the cylinder is inserted into the coil, and simple formulae are given for quick calculation. The derived values indicate the possibility of determining the average impedance of homogeneous cylindrical specimens by measuring the Q factor of a coil on a simple measuring instrument with minimum adjustment. Experimental measurements were made with a TESLA Brno type BM211A Q-meter on a 10 Mc coil, consisting of 9 turns of 1-mm silver-plated copper wire, 17 mm in diameter, having an inductivity of 0.9 μ H. The tested specimen was polycrystalline GaAs. The validity of the method was also corroborated by measuring various

Card 1/2

Determining the average impedance ...

Z/039/62/023/005/001/004
D291/D301

other conductors and semiconductors. It is pointed out that the described method is especially suitable for contactless measuring of the average impedance of semiconductors since it is very quick and surfaces are not contaminated, namely when specimens are wrapped in polyethylene foil. This measuring method in the field of a coil is applicable to low impedances, up to 100 Ω cm and frequencies below 100 Mc. The accuracy of this method depends only on the accuracy of the Q-meter used. In case very sensitive Q measurements are made, the method can be used to determine the homogeneity of alloys, for measuring the temperature coefficient of metals and alloys, to check the diameter of metal rods, to measure the quality of silver-plated surfaces, etc. There are 8 figures and 3 tables. The English-language reference is: N.W. McLachlan: Bessel functions for Engineers. Oxford, Clarendon Press 1955. f

ASSOCIATION: Výzkumný ústav pro sdělovací techniku A.S. Popova,
Praha (A.S. Popov Research Institute for Communication
Engineering, Prague)

SUBMITTED: January 25, 1962
Card 2/2

VIKTOR, E.; ZAVESKY, V.

Refractory linings of rotary furnaces for the blooming process. p. 417.
(Hutnicke Listy, Vol. 12, No. 5, May 1957, Brno, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

Viktora, E.; Hrdicak, I.

Refractory concretes made of portland cement. p141

(Stavivo. Vol. 35, no. 3, Mar. 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

VIKTORA, E.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and
Application - Ceramics, Glass, Binders, Concrete.

H-13

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 8721

Author : Hrdlicka L., Viktora E.

Inst : -

Title : Refractory Concrete From Portland Cement.

Orig Pub : Stavivo, 1957, 35, No 4, 141-144

Abstract : Results of investigations of the characteristics
(shrinkage, and 5th compression after firing at 650,
950, 1100 and 1250°, refractoriness, temperature of inci-
pient deformation, thermal stability, water-absorption
and porosity) of specimens of refractory concrete (RC)
from Czechoslovak portland cement with aggregates consis-
ting of scrap of dense and light-weight chamotte bricks,
tripoli insulation bricks, dust from chamotte mills and
electric power station cinders. Limit of operating tem-
perature of RC 1200-1250°; 900-1100° for the light-duty

Card 1/2

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and
Their Application - Ceramics, Glass, Binders,
Concrete.

H-13

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 8721

types; it is possible to raise it to 1300°.

Card 2/2

VIKTORA, E.

VIKTORA, E. Selection and use of fire-resistive materials in the construction of steam boilers for power plants. p. 273

Vol. 34, no. 8, Aug. 1956

STAVIVO

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

VIKTORA EUGEN

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their I-8
Application. Ceramics. Glass. Binders. Concrete.

Abs Jour : Ref Zhur-Khimiya, No 2, 1958, 5351.
Author : Viktora Eugen, Zavesky Vaclav.
Inst : Not Given.
Title : Refractory Lining of Tubular Furnaces.
Orig Pub : Hutnicke listy, 1957, 12, No5, 417-423

Abstract : Consideration of questions pertaining to stability of refractory lining (RL) of rotary furnaces for a direct production of Fe from ore. In view of the composition of the slag of this process it is recommended to utilize for RL primarily the semi-acidic refractories containing over 72% SiO₂; in addition, good results have

Card : 1/2

CZEC

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859720018-0

Abs Jour : Ref Zhur-Khimiya, No 2, 1958, 5351
Abstract : been obtained with fused mullite containing over 58% Al₂O₃ and corundum refractories having a porosity of about 22%. Chemical composition of RL has comparatively less effect on its stability than the porosity. Described are procedures of placing RL of rotary furnaces and, in particular, of the exit end which is especially often subject to loosening of shaped bricks; a drawing is shown of an improved laying of the exit end of the furnace, which has been found satisfactory in operation. Porosity of sime-acidic brick for RL must be below 16% and preferably of about 10%.

Card

: 2/2

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859720018-0

~~The book used as source. It is stated that an appropriate~~
~~process in the file of this living is checked in by drawing~~

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859720018-0"

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859720018-0

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859720018-0"

VIKTORA, J.; FODOR, J.; GRAFNETTER, D.; HAHN, P.; KOLDOVSKY, O.; LOJDA, Z.

Studies of certain biochemical indices of fat metabolism during the ontogenesis of rats. Cesk. fysiол. 9 no.1:63-64 Ja 60.

1. Ustav pro choroby oběhu krve, Fysiologický ústav CSAV a Embryologický ústav lek. fak. KU. Praha.

(FATS metab.)

(GROWTH)

FIALA, Jaroslav; VOPATOVA, Marie; KUBICKOVA, Zdena; VIKTOR, Ladislav

One year's experience with the preparation of retroplacental serum from retroplacental blood for the production of ~~gamma~~ globulin. Cas. lek. cesk. 98 no.10:305-309 6 Mar 59.

1. Ustav hematologie a krevni transfuze v Praze, reditel MUDr. J. Kidery.

(GAMMA GLOBULIN, prep. of
purification from retroplacental serum, technic (Cz))

(PLACENTA
retroplacental serum, separation from plasma & purification of component ~~gamma~~ globulin (Cz))

FIALA, J.; MAJSKY, A.; technicka spolupracu VIKTORA, L.

Contribution to the study of the anti-trypsin activity of some antihistaminics in vitro. Cesk. farm. 11 no.3:139-141 Mr '62.

1. Ustav hematologie a krevni transfuze, Praha (reditel prof. MUDr. J. Horejsi, DrSc.).
(ANTI-HISTAMINICS pharmacol) (TRYPSINS antag)

SEBESTIK, V.; JELINEK, J.; DIENSTBIER, Z.; VIKTORA, L.

The effect of ionizing radiation on nuclear and anuclear erythrocytes.
Physiol. Bohemoslov. 11 no.6:510-517 '62.

1. Institute of Haematology, and Blood Transfusion and Institute of
Biophysics, Medical Faculty, Charles University, Prague.
(RADIATION EFFECTS) (ERYTHROCYTES)

VIKTORA, L.

CZECHOSLOVAKIA

VIALA, J., MD; VIKTORA, L.

Institute of Hematology and Blood Transfusion (Ustav
hematologie a krevni transfuze), Prague (for both)

Prague, Vnitřní lékařství, No 7, 1963, pp 712-714

"Leucocyte Count by the Rapid Screening Test Method."

DOBRY, Eduard; FIALA, Jaroslav; techn. spoluprace URBANCOVA, Jaromira;
VIKTORA, Ladislav

Use of the blood preserved with an alcohol-glucose-citrate solution.
Cas. lek. cesk. 101 no.37:1126-1129 14 S '62.

1. Ustav hematologie a krevni transfuze v Praze, reditel prof. dr.
J. Horejssi, DrSc.

| | | |
|----------------------|------------|-----------|
| (BLOOD PRESERVATION) | (CITRATES) | (GLUCOSE) |
| (ALCOHOL ETHYL) | | |

VIKTORA, Ladislav

CZECHOSLOVAKIA

Not given

Member of the Institute for Hematology and Blood
Transfusion (Ustav hematologie a krevni transfuze),
Prague; Director: J. HOREJSI, Prof. Dr.

Prague, Prakticky Lekar, No 20, Oct 62, 873-875

"Methods Used to Count Blood Clots"

FIALA, Jaroslav, MUDr.; VIKTORA, Ladislav

Some comments of the work by B. Sedlak, and L. Vacek "Erythrocyte resistance compared by 3 methods". Vnitřní lek. 11 no.1: 86-88 Ja '65

1. Ústav hematologie a krevní transfuze v Praze (ředitel - prof. MUDr. Jaroslav Korejsi, Dr.Sc., člen korespondent Československé akademie věd).

DOBRY, E.; FIALA, Ya. [Fiala J.]; BRABETS, V. [Brabec, V.]; VIKTORA, L.;
LIVORA, I.; SECHEEESTIK, V.

Experiment in using various methods of blood preservation at
positive and negative temperatures. Probl. gemat. i perel.
krovi 8 no.5: 32-37 My'63. (MIRA 16:8)

1. Iz Instituta gematologii i perelivaniya krovi (direktor
prof. Ya.Gozheyshi) v Prage.
(BLOOD--COLLECTION AND PRESERVATION)

21

The use of coke-oven gas in the chemical industries.
Vavlay Viktor. *Phys. i Voda* 15, 2706 (1915); *Chem. Zvest.* 1930, 1, 1985.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

Hydrogenation of materials such as coal. Yaclov Vik-
 tora (to Ceskoslovenske tovarny na dusikite kalyk alc.
 spol.). U. S. 2,207,404, July 9. A mixt. of raw carbo-
 naceous material such as coal, oil, crude anthracene or
 naphthalene and H₂ is introduced into a circulating system
 (of a described app.) in which it is heated to form a cir-
 culating medium, including gaseous and vaporous por-
 tions, which is reflowed continuously through the system
 in an unsepd. condition under established conditions while
 a portion of the unsepd. hydrogenated products is drawn
 off at one point of the system and corresponding quantities
 of raw material and H₂ are introduced into the system.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

VIKULOV, A.V., prof.; ZAMYATINA, Z.I., dotsent; PONOMAR'OVA, A.Ya.,
assistent; VIKTORA, V.A., ordinator

Use of hinofort for the prevention and treatment of early
puerperal hemorrhage. Ped., akush. i gin. 24 no.1:57-58'62.

(MIRA 16:8)

1. Kafedra akusherstva i ginekologii (zav. - prof. A.V. Vikulov)
L'vovskogo meditsinskogo instituta (rektor - prof. L.M.
Kuzmenko).

(HEMORRHAGE, UTERINE) (ERGOT ALKALOIDS)

VINGO... V.A.

System and apparatus of the centralized control of electric-power
installations at the Degbyarka mine. Gor. zhur. no.9:55-57 3 '65.
(MIRA 18.9)

1. Konstruktor'skoye byuro "Svetmetavtomatika, Moskva.

13 (6)

SOV/101-59-1-2/10

AUTHORS: Diment, P. M., Viktorenkov, V. I., Gorbachevich, I. D.,
Petrotyants, G. V., Grin'ko, A. R.

TITLE: A Rotary Kiln with Cyclone Heat Exchangers (Vrashchayush-
chayasya pech' s tsiklonnymi teploobmennikami)
From the Work Experience of the Spasskiy Cement Plant
(Iz opyta raboty Spasskiy tsementnogo zavoda)

PERIODICAL: Tsement, 1959, Nr 1, pp 7 - 12 (USSR)

ABSTRACT: The authors state that the heat of gases escaping from a
rotary kiln working on a dry process is for the preparatory
heating of the raw material mixture. Part of the process is
carried out in the conveying calcinator, i.e. in the cyclone
heat exchangers. The latter are assembled at the rear of
the "Lepol" type kilns. In such kilns, prior to the calcinat-
ion of clinker, the plastic raw material containing about
12% water, ought to be granulated. When using cyclone heat
exchangers, the non-plastic raw materials, practically de-
void of water, may also be used for calcination. The
workers of Giprotsement (State Planning Institute for Cement

Card 1/2

A Rotary Kiln with Cyclone Heat Exchangers
From the Work Experience of the Spassk Cement Plant

SOV/101-57-1-2/10

Industry Enterprises) and workers of the Spasskiy tsementnyy zavod (Spasskiy Cement Plant) have designed a rotary kiln provided with cyclone heat exchangers. The output of this kiln will be 14 tons per hour. An installation of cyclones working in parallel is shown in a diagram (Fig. 1). The authors state that a 3 x 60 m rotary kiln, with one cyclone line, may produce 12 - 13 tons per hour. The specific heat expenditure is about 1,000 kcal/kg of clinker. The process of calcination itself is uniform, when consistency in the feeding and quality of the raw material mixture is maintained. Stop pages in the feeding of the raw mixture layer and pronounced differences in the constitution of mixture interfere seriously with the smoothness of the process, causing a drop in efficiency. The positive results obtained with the application of cyclone heat exchangers prove the usefulness of this device. The cyclones are recommended for application in the remaining kilns of the plant in question, and as well in other plants working on the dry process. There are 2 diagrams, 1 photograph and 3 tables.

Card 2/2

VIKTORENKOV, V.I., inzh.; VOLKONSKIY, B.V., kand. tekhn. nauk

Circulation of alkali in kilns with cyclonic heat exchangers.
TSement 31 no. 6:12-14 N-D '65. (MIRA 18:12)

1. Gosudarstvennyy vsesoyuznyy institut po proyektirovaniyu
i nauchno-issledovatel'skim rabotam tsementnoy promyshlennosti,
Leningrad.

VIKTORIN, J., inz. dr. (Praha)

Disruptive spark gap. Energetika Cz 13 no.9:504 S '63.

VIKTORIN, Jiri

Problem of heat transfer in boiling of liquids. Chem prum 12 no.8:413-418 Ag '62.

1. Vyzkumny ustav makromolekularni chemie, Brno.

1ST AND 2ND ORDERS
 PROCESSES AND PROPERTIES INDEX
 R-1

Physical properties of photo-electric cells.
 O. VUKOBRA (Chem. Listy, 1938, 32, 24-27).—The
 relations between the sensitivity of a photo-electric
 cell and the resistance and potential are studied.
 The use of the cells for studying ultra-violet radiation
 incidental to chemical reactions is illustrated. R. T.

ASS. SLA METALLURGICAL LITERATURE CLASSIFICATION
 1938-1940

| ALPHABETIC INDEX | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|
| 1ST AND 2ND LETTERS | | | | | | | | | | | | | 3RD AND 4TH LETTERS | | | | | | | | | | | | |
| A B C D E F G H I J K L M N O P Q R S T U V W X Y Z | | | | | | | | | | | | | A B C D E F G H I J K L M N O P Q R S T U V W X Y Z | | | | | | | | | | | | |
| <p>APPROVED FOR RELEASE: 09/01/2001</p> <p>The physical properties of photoelectric cells (1). Viktorin. (Arm. Listy 32, 24-5 (1938); (Arm. Listy 1938, 1, 3781).--At constant p. d. the no. of spontaneous discharges of a photoelec. cell decreases with increasing resistance; the relation corresponds approx. to a hyperbolic curve. The p. d. (V) and the no. of discharges are related according to the equation: $1/N = a + bV$. The sensitivity of the cell increases with rising p. d. Also, temporary fluctuations of the sensitivity were observed.</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>APPROVED FOR RELEASE: 09/01/2001</p> <p>Also see METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | |

| PROCESSES AND PROPERTIES | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <p>ca</p> <p>The physical properties of photoelectric cells. (1). Viktorin. <i>Chem. Listy</i> 32, 24-7 (1938); <i>Chem. Zentr.</i> 1938, I, 3751. At constant p. d. the no. of spontaneous discharges of a photoelec. cell decreases with increasing resistance; the relation corresponds approx. to a hyper- bolic curve. The p. d. (V) and the no. of discharges are related according to the equation: $1/N = a + bV$. The sensitivity of the cell increases with rising p. d. Also, temporary fluctuations of the sensitivity were ob- served. (G. G.)</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | |

CA

Chemical regulators and regulation indexes. O. Viki-
torov. *Chem. Listy* 39, 71-8 (1945).--The significance of
the so-called regulation indexes that should express
numerically the resistance of buffered solutions to both acids
and bases is denied. It is impossible to compare the
values found for the acidic and basic part of the pH scale.
The considerations are based on the Brønsted acid-base
theory and are supported by measurements of the follow-
ing buffers: AcONa-AcOH , borax-boric acid, and gall
ext. M. Hudlický.

The solubility and activity coefficients of silver chromate in some electrolytes. J. Harkuk and O. Viktorin (Ecole Polytech. Dr. E. Benet, Brno). *Collection Czechoslov. Chem. Commun.* 12, 630-6(1947)(in French); cf. C.A. 34, 6161¹, 7161¹.—The solubilities of Ag_2CrO_4 at 20° in 0.005 to 0.16 M KNO_3 , 0.005 to 0.16 M NaNO_3 , 0.005 to 0.05 M $\text{Mg}(\text{NO}_3)_2$, 0.005 to 0.16 M NH_4NO_3 , and in 0.02 and 0.1 M $\text{Na}(\text{C}_2\text{H}_3\text{SO}_2)$ were detd. The soly. of Ag_2CrO_4 in pure H_2O is 0.00010 g. per 100 g. of aq. soln. at 20°. Activity coeffs. were calcd. by the methods of Lewis and Randall and Brønsted and LaMer, but linear plots were obtained against the cube root, rather than square root, of the ionic strength. The two methods gave practically the same coeffs. The activity coeffs. were also calcd. by the limiting law and first approx. of the Debye-Hückel theory using spheres of influence between 1 and 3 Å. An attempt to apply the extended Gronwall, LaMer, and Gouss equation (C.A. 28, 5836) failed, the calcd. activity coeffs. always being higher than the exptl. ones.

Edward J. King

BC

a-1

Ultra-violet radiation in the Fabron effect. O. VIKTOROV (Coll. Czech. Chem. Comm., 1936, 8, 207-218; cf. this vol. 984).—Ultra-violet radiation is emitted only from the positive end of the tablet of semi-conductor subjected to an electric current; the intensity is a function of the voltage and varies irregularly with time and with the thickness of the tablet. Results are given for black paper, NaCl, NaF, PbI₂, and KNO₃. M. M. B.

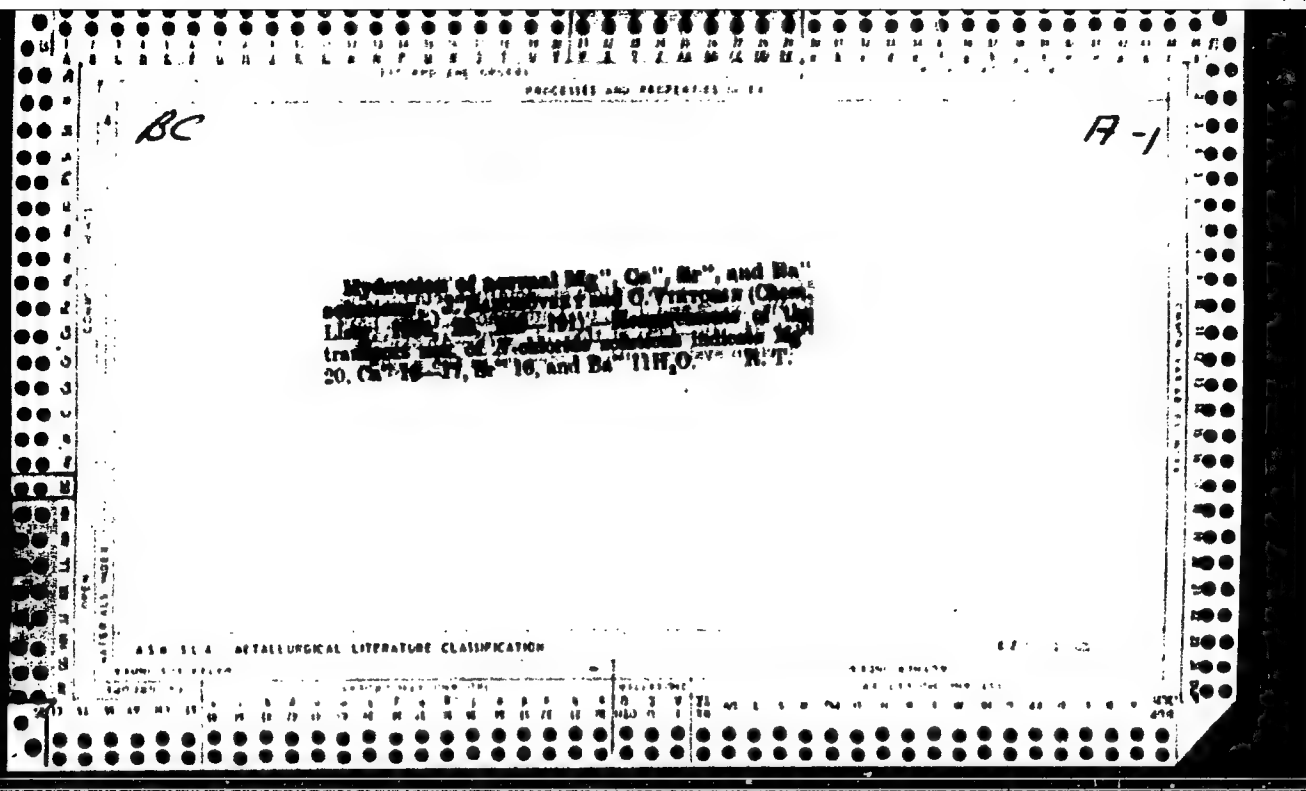
ASH, S. L. METALLURGICAL LITERATURE CLASSIFICATION

| LIST AND FIND ORDERS | | | | | | | | | | | | | | | | | | | | | | | | | | PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|--|--|--|
| MATERIALS INDEX | | | | | | | | | | | | | PROCESSES INDEX | | | | | | | | | | | | | PROPERTIES INDEX | | | | | | | | | | | | | OTHER INDEX | | | | | | | | | | | | |
| MATERIALS INDEX | | | | | | | | | | | | | PROCESSES INDEX | | | | | | | | | | | | | PROPERTIES INDEX | | | | | | | | | | | | | OTHER INDEX | | | | | | | | | | | | |
| <p>Hydration of the ions Mg^{++}, Ca^{++}, Sr^{++} and Ba^{++} in normal solutions. J. Baborovsky and O. Viktorin. <i>Collection Czechoslov. Chem. Communications</i> 3: 519-26 (1933).--The method of Baborovsky (C. A. 23, 712) was used for transference expts. in N solns. of $MgCl_2$, $CaCl_2$, $SrCl_2$ and $BaCl_2$. True transport nos. are 0.293, 0.299, 0.279, 0.289 and the moles of H_2O transferred at the cathode electrolytically by 1 faraday are --(0.330, 0.340, --0.630 and --1.25, resp., for Mg, Ca, Sr and Ba chlorides. The ionic hydration in moles of H_2O is 2), 17-16, 16, 11 for Mg^{++}, Ca^{++}, Sr^{++} and Ba^{++}. G. M. Murphy</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ASM-AIA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| 1ST AND 2ND CODES | | | | | | | | | | 100 AND 6TH CODES | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|-------------------|--|--|--|--|--|--|--|--|--|
| PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | |
| 1A | | | | | | | | | | 2 | | | | | | | | | |
| <p>Electrolytic transport of water in 0.1 N lithium, sodium and potassium bromides. O. Viktorin. <i>Chem. Listy</i> 2, 364-7(1933).--The electrolytic transport of H₂O is 0.15, 0.00 and 4.32, resp., for 0.1 N LiBr, NaBr and KBr, and the transport nos. of the cations are, resp., 0.401, 0.486 and 0.582. D. C. A.</p> | | | | | | | | | | | | | | | | | | | |
| ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION | | | | | | | | | | C-2 | | | | | | | | | |
| SECTION 1 | | | | | | | | | | SECTION 2 | | | | | | | | | |
| SECTION 3 | | | | | | | | | | SECTION 4 | | | | | | | | | |
| SECTION 5 | | | | | | | | | | SECTION 6 | | | | | | | | | |
| SECTION 7 | | | | | | | | | | SECTION 8 | | | | | | | | | |
| SECTION 9 | | | | | | | | | | SECTION 10 | | | | | | | | | |
| SECTION 11 | | | | | | | | | | SECTION 12 | | | | | | | | | |
| SECTION 13 | | | | | | | | | | SECTION 14 | | | | | | | | | |
| SECTION 15 | | | | | | | | | | SECTION 16 | | | | | | | | | |
| SECTION 17 | | | | | | | | | | SECTION 18 | | | | | | | | | |
| SECTION 19 | | | | | | | | | | SECTION 20 | | | | | | | | | |
| SECTION 21 | | | | | | | | | | SECTION 22 | | | | | | | | | |
| SECTION 23 | | | | | | | | | | SECTION 24 | | | | | | | | | |
| SECTION 25 | | | | | | | | | | SECTION 26 | | | | | | | | | |
| SECTION 27 | | | | | | | | | | SECTION 28 | | | | | | | | | |
| SECTION 29 | | | | | | | | | | SECTION 30 | | | | | | | | | |
| SECTION 31 | | | | | | | | | | SECTION 32 | | | | | | | | | |
| SECTION 33 | | | | | | | | | | SECTION 34 | | | | | | | | | |
| SECTION 35 | | | | | | | | | | SECTION 36 | | | | | | | | | |
| SECTION 37 | | | | | | | | | | SECTION 38 | | | | | | | | | |
| SECTION 39 | | | | | | | | | | SECTION 40 | | | | | | | | | |
| SECTION 41 | | | | | | | | | | SECTION 42 | | | | | | | | | |
| SECTION 43 | | | | | | | | | | SECTION 44 | | | | | | | | | |
| SECTION 45 | | | | | | | | | | SECTION 46 | | | | | | | | | |
| SECTION 47 | | | | | | | | | | SECTION 48 | | | | | | | | | |
| SECTION 49 | | | | | | | | | | SECTION 50 | | | | | | | | | |
| SECTION 51 | | | | | | | | | | SECTION 52 | | | | | | | | | |
| SECTION 53 | | | | | | | | | | SECTION 54 | | | | | | | | | |
| SECTION 55 | | | | | | | | | | SECTION 56 | | | | | | | | | |
| SECTION 57 | | | | | | | | | | SECTION 58 | | | | | | | | | |
| SECTION 59 | | | | | | | | | | SECTION 60 | | | | | | | | | |
| SECTION 61 | | | | | | | | | | SECTION 62 | | | | | | | | | |
| SECTION 63 | | | | | | | | | | SECTION 64 | | | | | | | | | |
| SECTION 65 | | | | | | | | | | SECTION 66 | | | | | | | | | |
| SECTION 67 | | | | | | | | | | SECTION 68 | | | | | | | | | |
| SECTION 69 | | | | | | | | | | SECTION 70 | | | | | | | | | |
| SECTION 71 | | | | | | | | | | SECTION 72 | | | | | | | | | |
| SECTION 73 | | | | | | | | | | SECTION 74 | | | | | | | | | |
| SECTION 75 | | | | | | | | | | SECTION 76 | | | | | | | | | |
| SECTION 77 | | | | | | | | | | SECTION 78 | | | | | | | | | |
| SECTION 79 | | | | | | | | | | SECTION 80 | | | | | | | | | |
| SECTION 81 | | | | | | | | | | SECTION 82 | | | | | | | | | |
| SECTION 83 | | | | | | | | | | SECTION 84 | | | | | | | | | |
| SECTION 85 | | | | | | | | | | SECTION 86 | | | | | | | | | |
| SECTION 87 | | | | | | | | | | SECTION 88 | | | | | | | | | |
| SECTION 89 | | | | | | | | | | SECTION 90 | | | | | | | | | |
| SECTION 91 | | | | | | | | | | SECTION 92 | | | | | | | | | |
| SECTION 93 | | | | | | | | | | SECTION 94 | | | | | | | | | |
| SECTION 95 | | | | | | | | | | SECTION 96 | | | | | | | | | |
| SECTION 97 | | | | | | | | | | SECTION 98 | | | | | | | | | |
| SECTION 99 | | | | | | | | | | SECTION 100 | | | | | | | | | |

| 1ST AND 2ND COLUMNS | | PROCESSING AND PROPERTIES INDEX | |
|--|--|---------------------------------|--|
| <p>Effect of parchment membrane on the transport numbers of cations in solutions of sodium and barium chlorides. J. Halaszovsky and O. Viktorin. <i>Collection Czechoslov. Chem. Communications</i> 5, 211-17(1933).—The cation transport nos. of NaCl and BaCl₂ were detd. from e. m. f. measurements of concn. cells with liquid junction in the presence and absence of a parchment membrane. The transport no. of Na ion at all concns. of NaCl investigated was increased by the membrane. The effect was less pronounced the greater the difference in the concn. of the electrode solns. This are explained by supposing that at low concns. adsorption of Cl ions on the membrane exerts an effect which is less at greater concns. In dil. solns. of BaCl₂ the transport no. of Ba is also increased by the membrane, but is decreased again at higher concns. This is taken to indicate an adsorption of Cl ions at lower concns., which is replaced by an adsorption of Ba ions at higher concns.</p> | | | |
| C. E. P. Jeffery | | | |
| <p>ASB. S. A. METALLURGICAL LITERATURE CLASSIFICATION</p> | | | |
| 1ST DIVISION | | 2ND DIVISION | |
| 3RD DIVISION | | 4TH DIVISION | |

[illegible]



Hydration of some ions in 0.1 molar solutions. J. BABOSHTVEY, Q. VIKTORIN AND A. WAGNER. *Collection Czechoslov. Chem. Communications* 4, 200-12 (1952).—The following hydration values are cited: K^+ , 29.3 mol H₂O; Na^+ , 44.5 mol H₂O; Li^+ , 62 mol H₂O; H^+ , 8 mol H₂O; Cl^- , 26.6 mol H₂O; Br^- , 26.6 mol H₂O; I^- , 31.4 mol H₂O. The numbers of the anions seem to tend, with increasing dil., to a common limiting value, indicating a phys. nature for hydration in dil. solns. and a chem. nature in concd. solns. Discrepancies between anodic and cathodic values increase with increasing concn., possibly because of hindrance by the parchment membranes. I. I. PAVLOV

430.314 METALLURGICAL LITERATURE CLASSIFICATION

2

Electrolytic transport of water in barium chloride solution. J. Babrovsky and O. Viktorin. *Chem. Listy* 58, 6(1934).—H₂O is transported to the anode in 0.5 N BaCl₂, and to the cathode in 0.1 N BaCl₂; the amt. of H₂O transported is proportional to the concn. of BaCl₂. The Ba^{II} is associated with 11 mole. of H₂O in N, and with 97 mole. of H₂O in 0.1 N solns. B. C. A.

COMMON ELEMENTS

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED INDEXED

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1 Electrolytic transport of water in normal lanthanum chloride solutions. J. Baburovsky and O. Viktorin. *Chem. Listy* 28, 257-R(1934); cf. C. A. 29, 2033^o. -- Higher values are found at p_H 3.12 than at p_H 1.92. B. C. A.

Measurement of hydrolysis of zinc and cadmium sulfates by means of the hydrogen and quinhydrone electrodes. V. ČERNÝ AND J. VÍRTHOVÁ. *Společnost Přírodovědných Přírodních Měření, Č. 134*, 1-16 (1931) (in Czech, summary in English).— *II electrode*.— See preceding abstract. *Quinhydrone electrode*. Measurements made with the quinhydrone electrode showed a low degree of hydrolysis for Zn and Cd sulfates, 0.0023-0.0040 and 0.0000-0.0010%, resp., for concns. from 1 to 0.1 molar.

HOWARD H. SANIGAR

| | | |
|---|--|---|
| <p>117 AND 178 20710</p> <p>COMMON ELEMENTS</p> <p>COMMON VARIANTS</p> | | <p>2</p> <p>CA</p> <p>The solubility and activity coefficients of thallium bromide. J. Bardeh and U. Vetter. <i>Collection Czech. Chem. Commun.</i> 11, 613-11 (1976) (in English).— By potentiometric titration with AgNO_3 the soly. of TlBr was detd. at 20° in solns. of varying concns. of NaNO_3, MgSO_4, $\text{Ba(NO}_3)_2$, K_2SO_4, $\text{Mg(CH}_3\text{COO)}_2$, $\text{Na}(\beta\text{-C}_4\text{H}_7\text{ClSO}_3)$, $\text{Al}_2(\text{SO}_4)_3$, $\text{Na}_2\text{S}_2\text{O}_8$ and Tl_2SO_4. The soly. of TlBr in 100 g. of pure water is 0.046519 g. at 20°. Activity coeffs. found for the various solns. by 2 methods of extrapolation were practically identical. The spheres of influence of the ions, calcd. by comparison of expd. activity coeffs. with those found by using the 1st Debye-Hückel approxn., were all of the order of 3-4 Å., except for the 2 benzene sulfonates, for which diams. of 4-6 Å. were found.</p> <p>T. H. Dunkleberger</p> |
| <p>ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>FROM SYMBOLS</p> <p>102000 HAS ONLY ONE</p> <p>102000 HAS ONLY ONE</p> <p>102000 HAS ONLY ONE</p> | | <p>102000 HAS ONLY ONE</p> <p>102000 HAS ONLY ONE</p> <p>102000 HAS ONLY ONE</p> |

| 1ST AND 2ND ORDERS | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--|--|--|
| PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> CR 2 </div> <p>Solubility and activity coefficients of thallium halides. O. Vlasov and J. Burdick. <i>Collection Czech Chem. Commun.</i> 11, 474-48 (1946).—The solubility of TlCl and TlI at 20° was found by potentiometric titration to be 0.32000 g. and 0.0003000 g., resp., per 100 g. H₂O. The values of the activity coeff., γ at 20° for TlCl and TlI in solutions of several salts were found by 2 methods (Lewis-Randall and Brønsted-Lablar), which give almost identical results. For the same value of μ, the values of γ are practically identical for the 2 halides of Tl. H. B. VanValkenburgh</p> | | | | | | | | | | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> <div> <p>COMMON ELEMENTS</p> <p>OTHER ELEMENTS</p> <p>PERIODIC TABLE</p> </div> <div> <p>ASA-3LA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>FROM SYMBOLS</p> <p>100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000</p> </div> <div> <p>COLLECTION</p> <p>100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000</p> </div> </div> | | | | | | | | | | | | | | | | | | | |

The foaminess of solutions. O. Viktorin, *Chem. Listy* 34, 265-8, 263-4 (1940).—Foaminess of colloidal Ag and gelatin solns. and its dependence on the surface tension and viscosity of the solns. were studied. Viscosity was increased by the addition of glycerol; surface tension was lowered with alc. Various gases were used to produce foam. The foam formation increased with increasing viscosity and decreasing surface tension. It increased in the series air, N₂, C₂H₄, O₂ as foam-producing gases. M. Hudlicky.

BC

66-1

Substances of low conductivity, and the Hahn effect. O. VIKTORIK. (Chem. Listy, 1936, 30, 60-64).—A discussion. R. T.

ALA-LLA METALLURGICAL LITERATURE CLASSIFICATION

| 10000 02 | 10000 010 000 000 | 0000000 | 00000 000 000 000 |
|-------------------|-------------------|-------------------|-------------------|
| 00000 000 000 000 | 00000 000 000 000 | 00000 000 000 000 | 00000 000 000 000 |

| | | | |
|---|--|--------------------|--|
| 131 AND 132 SERIES | | 133 AND 134 SERIES | |
| PROCESSING AND REQUESTED INDEX | | | |
| BC | | H-1 | |
| <p>Hydrolysis of the hydrolysis of ZnSO_4 and cadmium sulphate by means of the hydrogen and cadmium electrodes. V. Gurn and O. V. V. Gurn, <i>Proc. Roy. Soc. Lond.</i>, 1941, No. 184, 17, 18. Measurements of the hydrolysis of ZnSO_4 with the aid of the H electrode yield satisfactory results. The deviation found here on the p_H of the solution than on its concentration. Since colloidal Pt does not replace the p_H of the solution, and in absence of H₂ the solution becomes acid in presence of Pt-black, the reaction suggested by Denham and Harris, viz., $\text{Zn} + \text{H} = \text{Zn}^{2+} + \text{H}_2$, does not occur; the change of p_H is attributed to a replacement of H ions by Zn ions on the Pt surface. Measurements with the quinhydrone electrode indicate that the degree of hydrolysis in 1.0-0.1M ZnSO_4 is about 0.0023-0.0046%, and in 1.0-0.1M CdSO_4 0.0002-0.0016%.</p> <p>H. F. GILLES.</p> | | | |
| A13-11A METALLURGICAL LITERATURE CLASSIFICATION | | 6-27-57 131-134 | |
| EDSON STUBBS | | EDSON DOUGLAS | |
| 131 AND 132 SERIES | | 133 AND 134 SERIES | |
| 131 AND 132 SERIES | | 133 AND 134 SERIES | |

Influence of parchment membrane on the transport numbers of cations in solutions of sodium and barium chlorides. J. SABOROVSKÝ and O. VÍKTOREK (Coll. Czech. Chem. Comm., 1933, 8, 211-217).—The cation transport nos., μ_{Na} , μ_{Ba} , have been deduced from the e.m.f. of concn. cells with and without parchment membranes. The membrane causes an increase in μ_{Na} , which becomes more pronounced as the concn. ratio in the cell diminishes. This effect is probably due to adsorption of Cl^- by the membrane. With dil. aq. $BaCl_2$, μ_{Ba} is slightly higher in presence of the membrane, but in concn. solutions the reverse is the case, suggesting that Cl^- adsorption is predominant in dil., and Ba^{++} adsorption in concn. solution. D. R. D.

D. R. D.

| LIST AND INDEX | | PROCEDURES AND PROPERTIES INDEX | | TOP AND BOTTOM | |
|---|--|---------------------------------|--|----------------|--|
| <p>Hydration of ions Mg^{2+}, Ca^{2+}, Br^{-}, and Ba^{2+} in normal solutions. J. BANCORANT and O. VIRTANEN (Coll. Czech. Chem. Comm., 1966, 31, 518-520). The true transport numbers of the cations in H_2O, $MgCl_2$, $CaCl_2$, $BrCl_2$, and $BaCl_2$ are determined by Hoberovsky's method (A., 1966, 31, 518-520). The values of H_2O associated with the respective cations are Mg^{2+} 26, Ca^{2+} 17-18, Br^{-} 16, and Ba^{2+} 12. These results are compared with previous data. In all cases H_2O is also transported to the anode. M. H. B.</p> | | | | | |
| <p>ASB-513 METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | |
| SECTION 1 | | SECTION 2 | | SECTION 3 | |
| SECTION 1 | | SECTION 2 | | SECTION 3 | |
| SECTION 1 | | SECTION 2 | | SECTION 3 | |

BC

Electrolytic transport of water in 0.1N-NaBr, -sodium, and -potassium bromide. O. VIKTORIN (Chem. Listy, 1953, 27, 364-367).—The electrolytic transport of H_2O is 8.15, 6.00, and 4.32, respectively, for 0.1N-LiBr, -NaBr, and -KBr, and the transport nos. of the cations are respectively 0.401, 0.486, and 0.582.

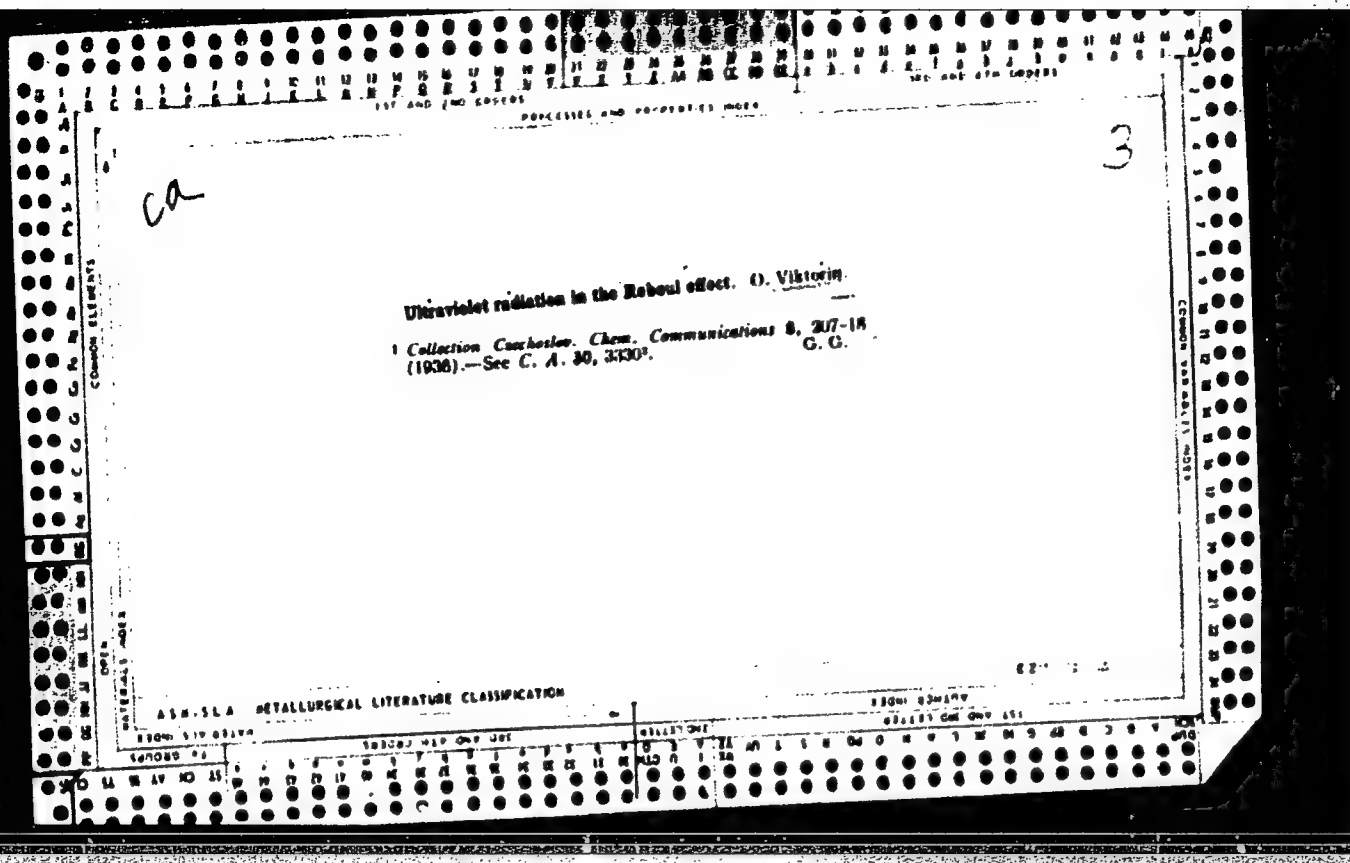
R. T.

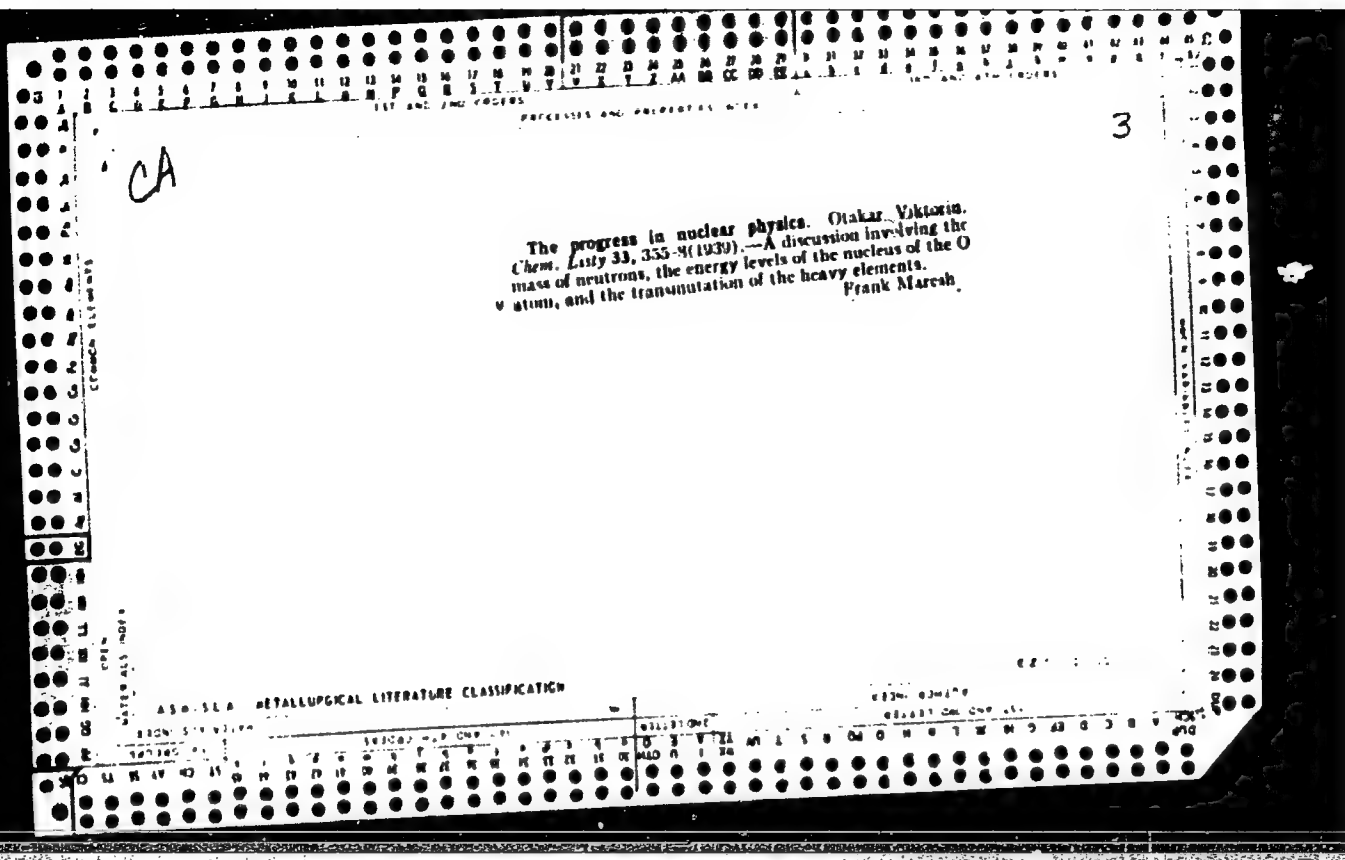
ASS-51A METALLURGICAL LITERATURE CLASSIFICATION

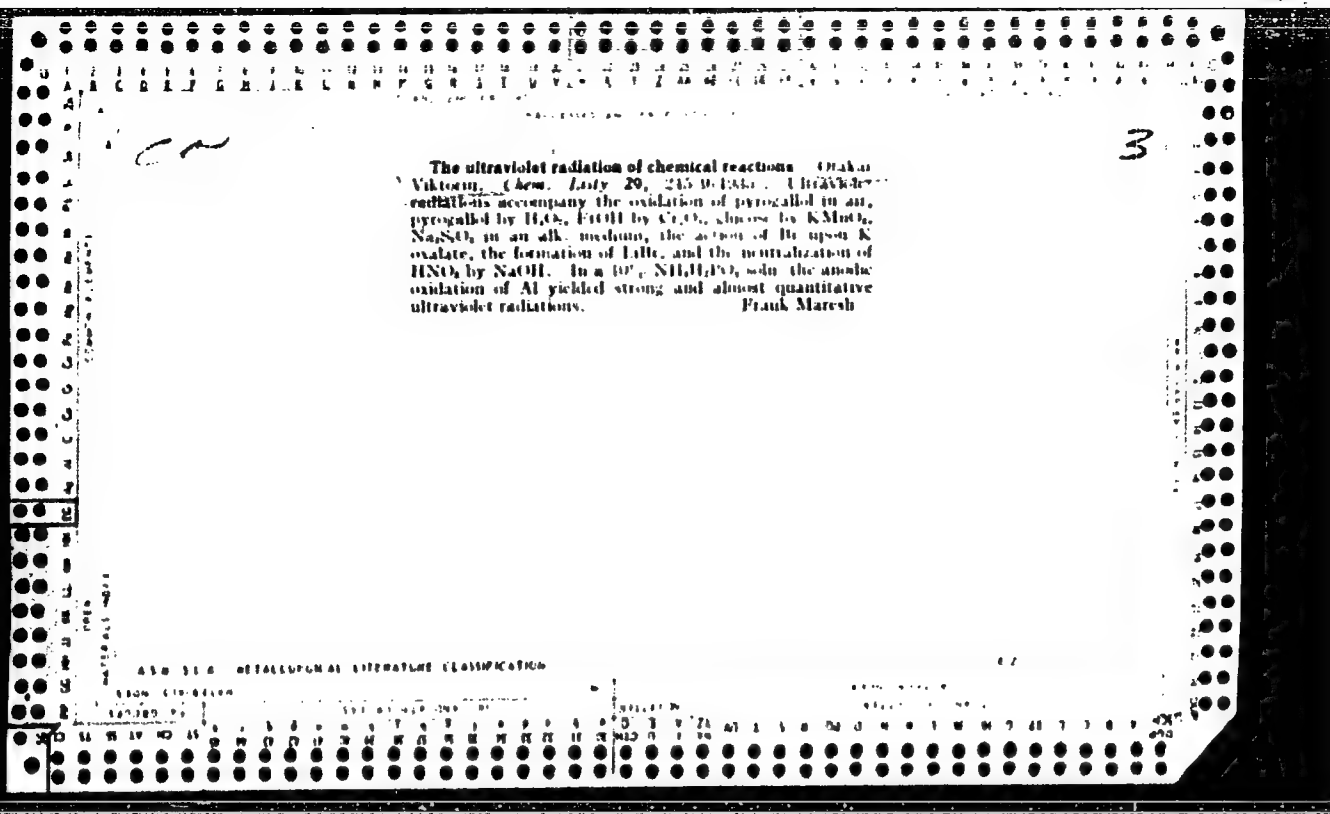
| 1ST AND 2ND CODES | | | | | | | | | | | | | | | | | | | | | | | | | | 3RD AND 4TH CODES | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | | | | | | | | MATERIALS INDEX | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>BC</p> <p style="text-align: right;">A-1</p> <p style="text-align: center;">Electrolytic transport of water in normal leatherson polymers membranes. J. BABOPOVSKI and O. J. BARNETT (Chem. Lett., 1974, 28, 257-258). —Higher vals. are found at p_2 3-12 than at p_2 1-92. R. T.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ASB-5.4 METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>SEARCHED INDEXED SERIALIZED FILED</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| COMMON ELEMENTS | | | | | | | | | | PROCESSING AND PROPERTY INDEX | | | | | | | | | | THE AND 4TH CRYSTAL | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|-------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|
| <p><i>BC</i></p> | | | | | | | | | | <p><i>A-1</i></p> | | | | | | | | | | | | | | | | | | | |
| <p>Electrolysis of water in barium chloride solution. O₂ evolution and O₂ VOLTAGE (Cath. Pot.) from 0-5. H₂O is transported to the anode in 0.1N BaCl₂ and to the cathode in 0.1N BaCl₂. The amount of H₂O transported at (H₂O) is associated with 11 mols. of H₂O in N₂ and with 11 mols. of H₂O in 0.1N solutions.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>12000 000000</p> | | | | | | | | | | <p>12000 000000</p> | | | | | | | | | | <p>12000 000000</p> | | | | | | | | | |
| <p>12000 000000</p> | | | | | | | | | | <p>12000 000000</p> | | | | | | | | | | <p>12000 000000</p> | | | | | | | | | |

| 1ST AND 2ND ORDERS | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--|--|--|
| PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | |
| <p>BC</p> <p style="text-align: right;">A-1</p> <p>Emission of radiation in chemical and biological phenomena. R. AUDUBERT and O. VIKTORIAN (Czech. Chem. Comm., 1935, 7, 281-272; cf. A. 1933, 704). Audubert and Van Doornik's results were confirmed. Data are recorded for the dependence on time of the no. of photons emitted in the anodic polarization of Al, and on the applied voltage. The intensity of the radiation \propto the anode c.d. Preliminary data are given for the spectral distribution of the radiation, using photocathodes of Al and CuI. Radiation was observed from nerves excited electrically or mechanically.</p> <p style="text-align: right;">H. J. E.</p> | | | | | | | | | | | | | | | | | | | |
| <p>ASB-55A METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | |
| FROM SYNDICATE | | | | | | | | | | TO SYNDICATE | | | | | | | | | |
| SYNDICATE | | | | | | | | | | SYNDICATE | | | | | | | | | |







The physical properties of photoelectric cells. O. ~~Chernin~~. *Chem. Listy* 32, 247 (1938); *Chem. Zvest.* 1938, 1, 3751. At constant p. d. the no. of spontaneous discharges of a photoelectric cell decreases with increasing resistance; the relation corresponds approx. to a hyperbolic curve. The p. d. (V) and the no. of discharges are related according to the equation: $1/N = a + bV$. The sensitivity of the cell increases with rising p. d. Also, temperature fluctuations of the sensitivity were observed. G. G.

The physical properties of photoelectric cells. O. P. Jönsson, *Acta Phys. Scand.*, 21-2 (1949); *Chem. Rev.*, 1938, 1, 275-312. At constant p. d. the no. of spontaneous discharges of a photoelectric cell decreases with increasing resistance; the relation corresponds approx. to a hyperbolic curve. The p. d. (V) and the no. of discharges are related according to the equation: $1/N = a e^{b/V}$. The sensitivity of the cell increases with rising p. d. At low potentials the nature of the sensitivity were observed.

G. G.

VIKTORIN, O.

The physical properties of photoelectric cells. O. Viktorin, *Chem. Trudy* 32, 21-7 (1938); *Chem. Zvezp.* 1938, 1, 3151. At constant p. d. the no. of spontaneous discharges of a photoelec. cell decreases with increasing resistance; the relation corresponds approx. to a hyperbolic curve. The p. d. (V) and the no. of discharges are related according to the equation: $1/N \propto p \cdot e^{-\alpha V}$. The sensitivity of the cell increases with rising p. d. The temperature dependence of the sensitivity was observed.

G. G.

VIKTORIA, E.

Dozent Ing. Eugen VIKTORIA, Feuerfeste Ausmauerungen (Zarovzdorné Vyzdivky), Prague:
State Publishing House for Technical Literature, 1955, Unclassified.

(Rough translation of title: Refractory Linings)
Abstract of book is to be found in Neue Huette, Vol. 1, No. 5, March 1956, Unclassified.

VIKTORIN, O.

The physical properties of photoelectric cells. O. VIKTORIN, *Chem. Zvezdy* 1938, 1, 3751. At constant p. d. the no. of spontaneous discharges of a photoelectric cell decreases with increasing resistance; the relation corresponds approx. to a hyperbolic curve. The p. d. (V) and the no. of discharges are related according to the equation $1/N = a + bV$. The sensitivity of the cell increases with rising p. d. The temperature dependence of the sensitivity was observed. G. G.

| 1ST AND 2ND COLUMNS | | | | | | | | | | | | | | | | | | | | | | | | | | PROCESSING AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | | | | | | | | 3RD AND 4TH COLUMNS | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <p>Ca</p> <p>The emission of radiation by chemical and biological phenomena. René Audubert and Otakar Viktorin. <i>Collection Czechoslov. Chem. Communications</i> 7, 201-72 (1935).—In the oxidation of EtOH by chromic acid, of glucose by KMnO_4, of pyrogallol acid, of hyposulfites and of sulfites and in the action $\text{H}_2 + \text{K}_2\text{Cr}_2\text{O}_7$ radiation in the region of 2150-2350 Å. was emitted. The sciatic nerve of a frog upon excitation also emitted in the same region at the rate of 1000-10,000 photons per sec. per sq. cm.</p> <p>R. E. DeRight</p> | | | | | | | | | | | | | | | | | | | | | | | | | | <p>3</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| METALLURGICAL LITERATURE CLASSIFICATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VIKTORIN POPOV,

ALEKSEEV, Gleb Vasil'evich and VIKTORIN POPOV. ...Issyk-Kul'; kirgizskie
oчерki. Moskva, Moskovskoe t-vo pisatelei, 1933. 207 p.

NN

NNC

DLC: DK861.K5A72

SO: LC, Soviet Geography, Part II, 1951, Unclassified

MAKARENKO, M.V.; VIKTORIN, V.D.; VOSTRIKOV, Ye.S.; PCHELINTSEV, P.Ye.
SHEVCHENKO, B.M.

Preliminary results of the development of the Yablonskoye
field. Geol. nefti i gaza 6 no.2:35-38 F '62.

(MIRA 15:2)

1. Neftepromyslovoye upravleniye Kinel'neft'.
(Kinel' District—Oil fields—Production methods)

VIKTORIN, V.D.

Features of the structure of oil reservoir rocks. Geol. نفت
1 gaza 8 no.11:31-34 N '64. (MIRA 17:12)

1. Permneft'.

VIKTORIN, Zbynek, inz.

Wood particle driers. Drevo 18 no.4:126-131 Ap '63.

1. Statni vyzkumny ustav tepelne techniky, Praha.

VIKTORIN, Z.

Determining the drying curves for pressed electroceramic articles."
P. 47.

SKLAR A KERAMIK. (Ministerstvo lehkeho prumyslu). Praha, Czechoslovakia,
Vol. 9, No. 2, Feb. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

VIKTORIN, Zbynek, inz.

Calculation of the drying process of unmoving layers of
blown through material. Zdravot tech 6 no.6:248-259 '63.

1. Statni vyzkumny ustav tepelne techniky, Praha.

VIKTORIN, Konstatin, inz.

Contribution to the automation of flotation plants.
Rudy 11 no.3:72-80 Mr '63.

1. Ustav meracich pristrojov, Slovenska akademie vied,
Bratislava.

VIKTORINOV, Ye.

Friendship University for three continents. Tekh.mol. 28 no.7:10-11
'60. (MIRA 13:8)

(Moscow--Universities and colleges)

VIKTOR, O.

(7)

The physical properties of photoelectric cells. *Viktor, O.*
 1938, 1, 1. At a constant p. the no. of ascertained
 discharges of a photoelectric cell decreases with increasing
 resistance, the minima correspond, according to a hypothesis
 of the author, to the p. of the cell. The no. of discharges is
 related according to the equation $I/N = \text{const}$.
 The sensitivity of the cell increases with increasing p.
 Also, temporary saturation of the cell is observed.

VIKTORINOVA, E.

Periodic system and its structure. Biol i khim 6 no.5:49-50
'63.

VIKTORINOVA, E.

The way I conduct consultative lessons in chemistry. Biol
1 khim 7 no.5:29-35 '64.

VIKTOROVA, R. Ye.; KOVALEVSKIY, S.A.

The Akchagnylian stage in Moldavia. Dokl. AN SSSR 94 no. 4: 737-740
P '54. (MLRA 7:2)
(Moldavia--Geology. Stratigraphic) (Geology, Stratigraphic--
Moldavia)